

## CLAIMS

1. An oval-cut diamond comprising a columnar girdle, a crown provided above the girdle and having an octagonal table facet on a top of the crown and a pavilion provided below the girdle;

the girdle having an upper ridge between the crown and the girdle, a lower ridge between the pavilion and the girdle and a contour line of a girdle cross-section, parallel to the table facet, being in an oval or oval-like shape;

wherein the diamond has:

a central plane containing a long axis of the contour line and being a plane vertical to the table facet,

a straight central axis crossing vertically the table facet on the central plane,

a circumscribed circle having a center on the central axis and circumscribing the contour line at an end of the long axis, and

eight-dividing planes composed of the central plane, a plane containing a short axis of the contour line of the girdle cross-section and the central axis and planes dividing an angle around the central axis between the plane containing the short axis and the central axis and the central plane equally into two;

the table facet having two opposite vertexes on the central plane and six vertexes symmetrical with respect to the central plane;

the crown having eight tetragonal crown main facets, eight triangular star facets and sixteen upper girdle facets on a diamond circumference between the girdle upper ridge and the table facet;

wherein each of the crown main facets is a tetragon having two opposite vertexes composed of a point, at which each of the eight-dividing planes crosses the girdle upper ridge, and each vertex of the table facet, and other vertexes each owned jointly with each of two other crown main facets neighboring on the crown main facet;

each of the star facets is a triangle having a bottom side coinciding with each side of the table facet and an opposite vertex coinciding with each of the other vertexes jointly owned by two neighboring crown main facets each having a vertex at each end of the bottom side; and

each of the upper girdle facets is a triangle or an oval sector having a bottom side coinciding with a side, whose end is on the girdle upper ridge, among sides of the crown main facets and a vertex on the girdle upper ridge;

the pavilion having a bottom apex at a lower end of the central axis, and eight pavilion main facets and sixteen lower girdle facets on the diamond circumference between the bottom apex and the girdle lower ridge;

wherein each of the pavilion main facets is a tetragon or a part of a tetragon extending from the bottom apex toward a crossing point of each of the eight-dividing planes with the girdle lower ridge on the diamond circumference between the bottom apex and the girdle lower ridge, and having a side, whose end coincides with the bottom apex, jointly owned with each of two other pavilion main facets neighboring on the pavilion main facet;

each of at least seven pavilion main facets among the pavilion main facets is formed with opposite vertexes composed of a crossing point of each of the eight-dividing planes with the circumscribed circle and the bottom apex;

each of the lower girdle facets formed between the pavilion main facets and the girdle lower ridge is a triangle or an oval sector having a bottom side coinciding with a side having an end on the girdle lower ridge among sides of each of the pavilion main facets and a vertex on the girdle lower ridge; and

each of the lower girdle facets is disposed on each of both sides of each of the pavilion main facets;

wherein the oval or oval-like shape formed by the contour line of the girdle cross-section has a ratio of a short radius to a long radius ( $b/a$ ) of 0.6 or more, in which a radius in a long axis direction of the shape (hereinafter, referred to as "long radius") is denoted as "a", and a radius in a short axis direction of the shape (hereinafter, referred to as "short radius") is denoted as "b".

wherein each pair of four pairs of pavilion main facets, of which each pair is composed of two pavilion main facets positioned opposite to each other with respect to the central axis, has two crown main facets facing the two pavilion main facets through the girdle, and the two pavilion main facets, the two crown main facets and the table facet have a common plane vertical to all of them within them.

2. An oval-cut diamond as set forth on claim 1, wherein the central axis is disposed in a center of the long axis of the contour line of the girdle cross-section, and the circumscribed circle circumscribes the contour line at both ends of the long axis.
3. An oval-cut diamond as set forth on claim 2, wherein each of the pavilion main facets has opposite vertexes composed of a crossing point of each of the eight dividing planes with the circumscribed circle and the bottom apex.
4. An oval-cut diamond as set forth on claim 3, wherein each of the pavilion main facets has a substantially equal pavilion angle to the table facet.
5. An oval-cut diamond as set forth on claim 4, wherein a crown main facet that each of the pavilion main facets having the substantially equal pavilion angle faces through the girdle has a substantially equal crown angle to the table facet.
6. An oval-cut diamond as set forth on claim 5, wherein a pavilion angle to the table facet each of the pavilion main facets has and a crown angle to the table facet each of the crown main facets has are in a region surrounded by lines connecting points (p, c): (43 degrees, 10 degrees), (41 degrees, 14 degrees), (37 degrees, 23 degrees), (35 degrees, 33 degrees), (35 degrees, 36 degrees), (37 degrees, 42 degrees), (39 degrees, 42 degrees), (41 degrees, 36 degrees), (43 degrees, 24 degrees) and (44.7 degrees, 9 degrees) on a graph drawn with pavilion angles (p) in a vertical line and crown angles (c) in a horizontal line.
7. An oval-cut diamond as set forth on claim 6, wherein the girdle has a

substantially equal girdle height around a whole circumference of the girdle, and six pavilion main facets excluding two pavilion main facets extending in a long axis direction from the bottom apex and lower girdle facets disposed between two neighboring pavilion main facets among the six pavilion main facets have adjusting facets between a respective facet and the girdle lower ridge having a larger angle to the table facet than the pavilion angle and forming a ridge between the respective facet and each of the adjusting facets.

8. An oval-cut diamond as set forth on claim 1, wherein at least seven pavilion main facets having opposite vertexes composed of a crossing point of each of the eight dividing planes with the circumscribed circle and the bottom apex have a substantially equal pavilion angle to the table facet.

9. An oval-cut diamond as set forth on claim 8, wherein a crown main facet that each of the pavilion main facets having the substantially equal pavilion angle faces through the girdle has a substantially equal crown angle to the table facet.

10. An oval-cut diamond as set forth on claim 9, wherein a pavilion angle to the table facet each of the pavilion main facets has and a crown angle to the table facet each of the crown main facets has are in a region surrounded by lines connecting points (p, c): (43 degrees, 10 degrees), (41 degrees, 14 degrees), (37 degrees, 23 degrees), (35 degrees, 33 degrees), (35 degrees, 36 degrees), (37 degrees, 42 degrees), (39 degrees, 42 degrees), (41 degrees, 36 degrees), (43 degrees, 24 degrees) and (44.7 degrees, 9 degrees) on a graph drawn with pavilion angles (p) in a vertical line and crown angles (c) in a horizontal line.

11. An oval-cut diamond as set forth on claim 10, wherein the girdle has a substantially equal girdle height around a whole circumference of the girdle, and six pavilion main facets excluding two pavilion main facets extending in a long axis direction from the bottom apex and lower girdle facets disposed between two neighboring pavilion main facets among the six pavilion main facets have adjusting facets between a respective facet and the girdle lower ridge having a larger angle to the table facet than the pavilion

angle and forming a ridge between the respective facet and each of the adjusting facets.

12. An oval-cut diamond as set forth on claim 1, wherein the contour line of the girdle cross-section parallel to the table is oval.

13. An oval-cut diamond as set forth on claim 1, wherein the contour line of the girdle cross-section parallel to the table is in a shape of two oval sectors crossing each other.

14. An oval-cut diamond as set forth on claim 1, wherein the contour line of the girdle cross-section parallel to the table is in a shape of three oval sectors crossing each other.